

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : Thomas J. Balkin, et al. Confirmation No.: 4164  
Serial No. : 10/757,480 Examiner: R. L. Nasser  
Filed : January 15, 2004 Group Art Unit: 3735  
Title : METHOD AND SYSTEM FOR PREDICTING HUMAN COGNITIVE  
PERFORMANCE

**LETTER ACCOMPANYING SB 08a**

United States Patent and Trademark Office  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir:

The two Japanese patent documents (cites no. 1 and 2 – foreign patent documents) were cited in a Japanese office action (English translation is attached) in a national stage application of PCT Application No. PCT/US99/20092, which is in the priority chain of this patent application. U.S. Pat. No. 4,893,291 is a counterpart application of Japanese cite no. 1. WO 88/10091, published in English, is the PCT publication for the PCT application that Japanese cite no. 2 is the national stage entry application.

Respectfully submitted,  
CAHN & SAMUELS, L.L.P.

By: /George A. Metzenthin/  
George A. Metzenthin, Reg. No. 41,995  
1100 17<sup>th</sup> Street NW, Ste. 401  
Washington, D.C. 20036  
Telephone: (202) 331-8777  
Fax: (202) 331-3838

June 19, 2009

Reference Number:

Dispatch Number: 313208

Dispatch Date: May 21, 2009

---

## Notification of Reason(s) for Refusal

Patent Application Number	2000-580146		
Drafting Date	May 14, 2009		
Examiner of JPO	Shinya ARAMAKI	8703	2Q00
Representative/Applicant	Kosaku INAOKA, et al.		
Applied Provision	Patent Law Section 36		

This application should be refused for the reasons mentioned below. If the applicant has any argument against the reasons, such argument should be submitted within 3 months from the date on which this notification was dispatched.

## Reason(s)

The recitations of the claims of the present application do not comply with the requirements set under Patent Law Sections 36(6)(i) and (ii) for the following points.

## Note

The method inventions according to Claims 1 to 31 recite a vague concept as follows: "selecting a function based on the wake states and the sleep states in the data series, and calculating a cognitive performance capacity based on the selected function." However, Detailed Description of the Invention only discloses calculating a cognitive performance capacity using four functions (wake function, sleep function, transition function, and sleep inertia function), for example, which is not found to sufficiently support the extremely broad concept of the inventions according to Claims 1 to 31.

In addition, as described in a prior art reference (US Patent No. 5,433,233 (sic)), it is a known technique to calculate a cognitive performance capacity based on biological information. Therefore, no other conclusion can be reached, but the inventions according to Claims 1 to 31 do not specify what function to be selected, resulting in unclearness to the technical features of the inventions.

Similarly, the apparatus inventions according to Claims 32 to 55 are not found to be sufficiently supported by Detailed Description of the Invention. Furthermore, the technical features of the inventions are not clear.

Therefore, the inventions according to Claims 1 to 55 are neither recited in Detailed Description of the Invention nor clear.

Record of the Result of Prior Art Search

- Technical field(s) searched:   IPC           A61B    5/16  
  G06F    17/17, 19/00
  
- Prior Art Reference(s):   United States Patent No. 5,433,233 (sic)\*  
                                  Japanese Unexamined Patent Publication No. 3-502727  
                                  Japanese Patent No. 2739725  
                                  International Patent Application Publication No. WO 90/00777

This record is not a component of the reason(s) for refusal.

If you have any inquiry or wish an interview on this Notification of Reason(s) for Refusal, please contact at the following:

Shinya ARAMAKI

Material Analysis Division of First Patent Examination Department

Tel: 03-3581-1101    Extension: 3289

Fax: 03-3592-8858

---

\* The number has a typographical error, which should read "US Patent No. 5,433,223," confirmed with the Examiner.